

Art Unit: 1652

Rejection for lack of enablement of the full scope of the claims was discussed. Applicants' representative indicated that the application discloses 16 working examples of polypeptides that have alcohol/aldehyde dehydrogenase function, and 9 of these 16 polypeptides have less than 90% identity with SEQ ID NO: 8. Of these 16 polypeptides, 13 were chimeric protein. As disclosed in Examples 14 and 15, these chimeric proteins were made by exchanging the amino acids of SEQ ID NO: 5 and 8. Of these chimeras, 6 have less than 90% identity with SEQ ID NO: 8. It would be therefore not an undue experimentation to arrive at a polypeptide having at least 90% identity with SEQ ID NO: 8 and having alcohol/aldehyde dehydrogenase function.

The examiners have agreed that the examples disclose swapping portions of the enzymes of SEQ ID NO:5 and SEQ ID NO:8 when producing chimeric proteins as well as for swapping the subunits of the enzymes. Therefore, artificial enzymes which comprise definite fragments of the natural enzymes would be enabled. The claims however, are not limited to the polypeptides obtained by swapping portions of SEQ ID NO:5 and 8. Claim 1 is directed to single polypeptides being at least 90% identical to SEQ ID NO: 8, and not only to chimeras. The Examiners agreed that claims reciting chimeric polypeptides of SEQ ID NO: 5 and 8 would be acceptable. The Examiner also agreed that a polypeptide having at least 95% identity to SEQ ID NO: 8 would be acceptable.

The scope of claim 3 was also discussed.